

Middlesex University Research Repository

An open access repository of

Middlesex University research

<http://eprints.mdx.ac.uk>

Audenaert, Mieke, Carette, Philippe, Shore, Lynn M., Lange, Thomas, Van Waeyenberg, Thomas and Decramer, Adeliën (2018) Leader-employee congruence of expected contributions in the employee-organization relationship. *The Leadership Quarterly*, 29 (3) . pp. 414-422.
ISSN 1048-9843 [Article] (doi:10.1016/j.leaqua.2017.09.003)

Final accepted version (with author's formatting)

This version is available at: <https://eprints.mdx.ac.uk/22640/>

Copyright:

Middlesex University Research Repository makes the University's research available electronically.

Copyright and moral rights to this work are retained by the author and/or other copyright owners unless otherwise stated. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge.

Works, including theses and research projects, may not be reproduced in any format or medium, or extensive quotations taken from them, or their content changed in any way, without first obtaining permission in writing from the copyright holder(s). They may not be sold or exploited commercially in any format or medium without the prior written permission of the copyright holder(s).

Full bibliographic details must be given when referring to, or quoting from full items including the author's name, the title of the work, publication details where relevant (place, publisher, date), pagination, and for theses or dissertations the awarding institution, the degree type awarded, and the date of the award.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.

See also repository copyright: re-use policy: <http://eprints.mdx.ac.uk/policies.html#copy>

Leader-employee congruence of expected contributions in the employee-organization relationship

Abstract

Employees' expected contributions can be incongruent with those of their leader. We examine the congruence effect of leaders' and employees' expected contributions on job satisfaction. Results of cross-level polynomial regressions on 947 employees and 224 leaders support the congruence effect. When expected contributions are congruent, employees are more satisfied with their job. Our findings suggest that employees enjoy high challenges, as long as these challenges are in harmony with the expected contributions of their leaders. Employees are less satisfied with their jobs both when their expected contributions were higher than their leaders' and when their expected contributions were lower than those of their leaders. Beyond the relevance of having high expected contributions, the findings highlight the crucial role played by the congruence of expected contributions of leaders and employees.

Keywords: Expected contributions; Leader-employee congruence; Employee-organization relationship; Employment relationship; Job satisfaction

Introduction

The extent to which employees need to fulfil in-role and extra-role expectations in their job may differ, sometimes largely, from their leaders. This study looks at how (in)congruence of expected contributions between employees and their leaders affects employees' job satisfaction.

Expected contributions concern in-role performance requirements regarding the quality and quantity of job performance, and extra-role expectations regarding initiative taking, implementing new ideas, and continuous improvements (Tsui, Pearce, Porter, & Tripoli, 1997; Wang, Tsui, Zhang, & Ma, 2003). Such expected contributions can be demanding and detrimental to employee well-being (Bakker & Demerouti, 2007). However, high expected contributions are not necessarily a disadvantageous development. High expected contributions can also be motivating (A. Y. Zhang, Song, Tsui, & Fu, 2014), and under these circumstances, employees can be satisfied with their job (Morgeson & Humphrey, 2006). In this study, we look at the effect of leaders' expected contributions on employees' job satisfaction.

We specifically study the congruence effect of leaders' and employees' expected contributions on employee job satisfaction. Studying congruence addresses the need for research that acknowledges the context in which motivational aspects of job design affect employees (Oldham & Hackman, 2010). We follow previous research that points at leaders as a vital part of the daily, social context of employees. Leaders provide employees with the context in which they can reach their challenging goals (Audenaert, Decramer, George, Verschuere, & Van Waeyenberg, 2016). We consider job satisfaction as an important outcome variable, since leadership behaviors and employees' behaviors have been shown to

be strongly associated with important work-related attitudes, such as job satisfaction (e.g., Braun, Peus, Weisweiler, & Frey, 2013).

If leaders experience low expected contributions relative to employees, this may result in reduced leader legitimacy, which may lower employees' job satisfaction. That is, if the leader's expected contributions are lower than the employee's expected contributions, then the leader's role may contribute to employee dissatisfaction by being less demanding than the employee's own expected contributions. It is therefore important from both, a research perspective and a practitioner's point of view, to gain more insight into the role of congruence and incongruence of expected contributions for an employee's job satisfaction.

Drawing on theories that stress the relevance of social cognitive processes (Bandura, 1986; Lent & Brown, 2006) and social comparison (Adams, 1965; Festinger, 1954), we make two important contributions. First, we contribute to work on expected contributions by conceptualizing and demonstrating the need for leaders to match employees' expected contributions. Previous research has shown that expected contributions intrinsically motivate employees (A. Y. Zhang et al., 2014), which drives beneficial employee outcomes, such as individual innovation (Audenaert, Vanderstraeten, & Buyens, 2016). Indeed, expected contributions have been shown to matter in the employee-organization relationship (Tsui et al., 1997). Research also indicates that it is important to acknowledge the social environment of employees' expectations. When expectations are consistent among team members, employees are more inclined to trust their leader and perform well (Audenaert, Decramer, Lange, & Vanderstraeten, 2016). However, existing research is silent about the role of the leaders' own expected contributions when examining outcomes from employees' expected contributions. This is an unfortunate gap, as leaders play a crucial role in shaping employees' attitudes, behaviors and feelings, such as satisfaction with their job. Therefore, we study

leaders' expected contributions as a crucial extension of the link between employees' expected contributions and job satisfaction. We examine both the effects of congruence and incongruence of expected contributions. Second, we also contribute to work on leader-follower congruence. Literature on leader-follower congruence has focused on characteristics and mutual expectations. For instance, previous research found that congruence of personality (Z. Zhang, Wang, & Shi, 2012) and congruence of empowerment role expectations enhance employee attitudes and behaviors (Humborstad & Kuvaas, 2013). We extend this literature by focusing on the organization's expected contributions from the employee and the leader. What is more, by studying how a leader's expected contributions affect an employee's job satisfaction, we extend the longstanding literature stream that studies how leaders affect employees' job satisfaction in the leadership literature on leader-follower relationships (Aryee & Zhen Xiong, 2006; Graen, Novak, & Sommerkamp, 1982; Harris, Wheeler, & Kacmar, 2009).

Theory and hypothesis development

Leader-employee congruence of expected contributions and job satisfaction

Locke (1976: 1300) defined job satisfaction as 'a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences'. We propose that this emotional state is also linked to the job of the leader and the congruence with one's own job. Building on social cognitive theory (Bandura 1986), Lent and Brown (2006) have developed the social cognitive model of job satisfaction (Lent & Brown, 2006). This model proposes that goal and efficacy relevant environmental stimuli engender a cognitive process of self-efficacy, outcome expectations and felt progress in goal pursuit. Expected contributions reflect

environmental stimuli that affect employees ‘through cognitive processes underlying intrinsic motivation to meet prescribed goals and behavioral requirements’ (A. Y. Zhang et al., 2014: 811). We build further on social cognitive theory to argue that congruence of expected contributions affects job satisfaction.

The social environment may provide goal and efficacy relevant resources and barriers which are likely to figure prominently in the job satisfaction process (Lent & Brown, 2006). Whereas goal-relevant resources prompt satisfaction, ‘goal-thwarting conditions may have the opposite effect’ (Lent & Brown, 2006: 242). The resources and barriers from the social environment affect job satisfaction because they impact employees’ beliefs about their capacity to perform the required tasks successfully (i.e., self-efficacy), as well as their beliefs about whether they will reach the expected outcomes. In addition, the social environment and the beliefs about self-efficacy and expected outcomes also impacts goal progress. Taken together the social environment and its resulting cognitive mechanisms are vital to job satisfaction.

An important source of goal-relevant resources or barriers from the social environment is the leader. A leader that functions as a well-trained role model may enhance observational learning (Bandura, 1986). Role models are also well-placed to provide relevant performance feedback (Lent & Brown, 2006). Leaders are perceived as a competent and worthy role model (Yaffe & Kark, 2011) that employees find them ‘worthy of identifying with and imitating’ (Conger & Kanungo, 1987: 642). Such legitimate leaders are inclined to be perceived as meaningful, predictable and trustworthy. In contrast, when leaders are not considered as legitimate, employees do not perceive them as meaningful to their work (Suchman, 1995). Leaders are perceived as legitimate when their work’s expected contributions are perceived to be just relative to the expected contributions of one’s own role

(Yaffe & Kark, 2011). This principle of legitimacy is particularly important because leaders communicate what the organization expects from employees. Expected contributions are managed throughout multiple leader duties such as performance planning, performance appraisal, promotion, assigning training, authorizing raises and benefits (Audenaert, Decramer, George, et al., 2016). When expected contributions of employees and leaders are congruent, leaders are more inclined to be regarded as a legitimate party to play their role as a supervisor that steers performance, such as through the provision of performance feedback and encouragement. Such worthy role models have the potential to provide relevant performance feedback and goal-relevant resources (Lent & Brown, 2006). Getting goal-relevant performance feedback and access to goal-relevant resources, facilitates positive self-efficacy beliefs, and positive outcomes expectations. These cognitions are satisfying to employees. They also encourage employees to engage in goal pursuit which is also satisfying to employees (Lent & Brown, 2006).

Drawing on the above theoretical reasoning, we postulate that the congruence of expected contributions of the employee and the leader will lead to higher levels of job satisfaction.

***Hypothesis 1:** More congruent employee's and leader's levels of expected contributions is associated with higher employee job satisfaction*

We expect that the effect on job satisfaction will be particularly strong when employees' expected contributions are not only congruent with those of their leader but also high. Below, we develop our arguments based on the motivational mechanisms of self-efficacy and observational learning incorporated in the social learning model of job satisfaction (Lent & Brown, 2006).

In their social cognitive model of job satisfaction, Lent and Brown (2006: 243) expect that ‘challenging (vs. too easy) goals may be particularly satisfaction-enhancing (Ryan & Deci, 2001)’. Accordingly, building on social cognitive theory, Zhang et al. (2014: 812) argue that ‘Employers signal their confidence in employees by conveying their high expectations of work behavior and attitudes. That assurance encourages employees to assess themselves positively and to belief that they can perform effectively’. In other words, these expected contributions are empowering preconditions which foster employees to experience self-efficacy (A. Y. Zhang et al., 2014). By expecting high contributions, the organization signals that the employees’ inputs create value, and that they believe in employees’ potential to make progress on these valued goals (Shore & Barksdale, 1998). When expected contributions are high, employees have to take initiative to improve work procedures and methods, and they need to take on new challenging assignments outside their work roles. They are expected to work hard and be committed to the company's future development. These expectations signal to employees that they are important to the organization (Hom et al., 2009). As a consequence, employees feel valued and positive about their self-efficacy, which is satisfying (Jia, Shaw, Tsui, & Park, 2013; A. Y. Zhang et al., 2014). Employees perceive to have the capacity to achieve valued outcomes (A. Y. Zhang et al., 2014). Besides being crucial for goal-directed behavior, this felt self-efficacy also is inherently satisfying (Lent & Brown, 2006).

When both leaders and employees experience high expected contributions, leaders will be more inclined to support and induce their employees to reach challenging goals. High and broad performance of the employee is considered beneficial for the leader, as they get credit for high employee contributions. When leaders are also required to provide high contributions to the organization such matching of expectations provides a basis for a motivating and satisfying work environment. Furthermore, employees are more inclined to

look up to their leaders if they function as a competent and worthy role model, also facing high expected contributions (Yaffe & Kark, 2011). Building on social learning theory (Bandura, 1986), by having a worthy role model, observational learning is more inclined to occur. Employees can take advantage of observing their well-trained model and will experience improvements of their knowledge and understanding required for fulfilling their own expected contributions. In other words, their leaders are more likely to provide employees with goal and efficacy relevant support, which is satisfying because it contributes to self-efficacy and positive outcome expectations. Also, this observational learning is inherently satisfying (Lent & Brown, 2006). Furthermore, leaders with high expected contributions also may provide more encouragement out of self-interest. In order to reach their own expected contributions, they are inclined to benefit when their employees pursue high contributions.

In support of the expectation that congruent expected contributions foster job satisfaction *when* expected contributions are high, previous research indicates that employees are empowered by high expected contributions (Audenaert, Vanderstraeten, et al., 2016; A. Y. Zhang et al., 2014). We hypothesize:

Hypothesis 2: *Job satisfaction is higher when an employee is congruent with a leader at high levels of expected contributions rather than when an employee is congruent with a leader at low levels of expected contributions.*

The above reasoning implies that incongruence of expected contributions leads to lower levels of job satisfaction. When leaders expect from their employees to perform high in-role and extra-role duties that exceed their own duties, then employees are less likely to perceive them as worthy role models. In such a situation, employees are likely to experience lower

self-efficacy and lower beliefs that they will obtain the required outcomes, which can affect employees' job satisfaction. Drawing on social comparison theory, we expect that the incongruence will be particularly harmful for job satisfaction when expected contributions are lower for the leader than for employees.

Social comparison theory suggests that assessments of relative standing contrasted with a reference group have more effect on attitudes and behaviors than individual assessments of one's own standing (Davis, 1966). A literature review supports this suggestion (Greenberg, Ashton-James, & Ashkanasy, 2007). Adams (1965) equity theory emphasizes the importance of distributive justice. Employees compare their input-output ratio, which is the ratio of their contributions relative to their benefits, with that of significant others. According to Adams (1965: 280) this reference person is 'comparable to the comparer on one or more attributes'. Proximity is one of these attributes (Greenberg et al., 2007). A proximal and important other that employees face in the workplace are leaders. The principle of equity is harmed when leaders' expected contributions are low relative to employees' expected contributions. By holding the position of leader, the leader enjoys more social status in the organization and is more materially rewarded than employees. When less is expected from leaders relative to what is expected from employees, then employees are likely to perceive their treatment as inequitable. These feelings have been found to affect attitudinal and behavioral outcomes such as job satisfaction. Drawing on this theoretical reasoning, we hypothesize that the incongruence of expected contributions of the employee and the leader will lead to lower levels of employee job satisfaction when expected contributions of employees are higher than that of their leaders.

***Hypothesis 3:** Incongruence is associated with lower job satisfaction (this effect is particularly strong when a leader's expected contributions are lower than those of an employee).*

Methods

Sample

Our study took place in a large public sector organization active in employment services in Flanders (a region of Belgium), and constituted a part of a large research project on 'HRM, leadership and its outcomes'. The organization under investigation faced many challenges during the years preceding the survey. Organizational restructuring took place and the number of employees was reduced to respond to financial budget constraints. The remaining employees were expected to do more work with fewer resources.

As data collection was part of a larger research project, we are able to reduce a potential bias commonly observed when respondents hold prior knowledge of a survey's specific purpose. The data was collected from two sources (employees and leaders) and at two time points. Our survey design followed recommendations by Podsakoff, MacKenzie, and Podsakoff (2012) such as pretesting the survey, identifying expert informants, offering incentives, and gaining support from central authorities and directors. The purpose of the survey was explained in a meeting aimed at members of the board of directors and in a meeting for all HR managers. Subsequently, the survey was announced by an e-mail from the CEO to all employees of the organization, and anonymity was assured. Advanced notification of this nature has been shown to generate a comparable response rate to hard copy questionnaires (Kaplowitz, Hadlock, & Levine, 2004).

Data collection employed time-lagged surveys distributed to both leaders and to their employees. The surveys were distributed online. Prior to the distribution, the researchers received a list of the leaders and their corresponding employees from the Human Resources Manager. The researchers then assigned identification numbers to match leaders and their employees. The first survey entailed the items for measuring the organization's expected contributions. The same questionnaire was distributed to the leaders and the employees. Three months later, data on employees' job satisfaction was collected. Such 'temporal separation' is recommended to prevent common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We arrived at a response rate (48 per cent) that is higher than the reported mean (39.6 per cent) of electronically distributed surveys (Cook, Heath, & Thompson, 2000). Considering the survey request at two time points, we consider this a satisfactory response. A total of 1097 employee surveys were collected. In what follows, the cross-level polynomial regressions were performed on those cases that had no missing data on any of the independent and control variables. This led to a reduced sample of 947 employees and 224 leaders to conduct our analysis.

Measures

Expected contributions. We used a five-point rating scale to measure expected contributions by Jia et al. (2013) that consists of 14 items. This scale entails both in-role and extra-role expectations. The scale was used to measure both the expected contributions from employees and from leaders. Example items are 'I am expected to complete performance goals in quality and quantity', and 'I am expected to adopt new ideas and methods actively to improve work' ($\alpha = .87$).

Job satisfaction. We used 3 items of a five-point rating scale to measure job satisfaction that was developed by Cammann, Fichman, Jenkins, and Klesh (1983). The items are: ‘All in all, I am satisfied with my job’, ‘In general, I don’t like my job (R)’, and ‘In general, I like working here’ ($\alpha = .76$).

Controls. We chose control variables based on recent studies on congruence effects that stress the potential influence of demographic variables on motivational processes (e.g., Humborstad & Kuvaas, 2013). We include employee’s age and education as control variables, which also have been included in other studies of congruence effects on job satisfaction (Jansen & Kristof-Brown, 2005). The significant association of age and education with job satisfaction may be explained by the different job characteristics that are typical for younger workers and less educated employees. Younger workers may be less satisfied with the motivating potential of their job. Also less educated employees may have less opportunities to have an intrinsically motivating job (Lee & Wilbur, 1985). Age was reported in years. Education was coded as a dummy variable (1= higher education). In addition, considering the significant association of gender with job satisfaction because women’s expectations may be lower than men’s (Clark, 1997), we follow recent studies on congruence effects by controlling for gender differences between the employee and the leader (e.g., Z. Zhang et al., 2012).

Confirmatory Factor Analysis (CFA)

Prior to testing the hypotheses, we used CFA to assess our hypothesized measurement model containing job satisfaction and the higher-order factor expected contributions (i.e., entailing in-role and extra-role expectations). We first lowered the number of parameters to be estimated by combining items into parcels (Little, Cunningham, Shahar, & Widaman, 2002). This is desirable when the number of items is higher than 12 (Marsh, Hau, Balla, & Grayson,

1998). For each construct, we calculated two parcels that represent the means of the odd and even items respectively. This odd/even parceling procedure is supported to reduce sources of sampling error and is associated with higher reliability and communality (Yang, Nay, & Hoyle, 2010). We reported the parcel-level correlation matrix in the Appendix. For each CFA, we calculated several goodness-of-model fit indices. In line with the cutoff criteria of Hu and Bentler (1999), we reported a good fit of the measurement model and the data when the Comparative Fit Index (CFI) and the Tucker Lewis Index (TLI) were close to .95, the root mean square error of approximation (RMSEA) was lower than .06, and when the standardized root mean square residual (SRMR) was lower than .08. Finally, we report the Satorra-Bentler chi-square difference test ($\Delta\chi^2$), which adjusts for non-normality in ordinal data (Satorra & Bentler, 2001), and the Akaike Information Criterion (AIC) (Akaike, 1974) to compare different models to support the discriminant and convergent validity of our measures. The exact values for the data as well as the criterion we use for evaluating model fit are reported within the results section.

Multilevel Polynomial Regression Analysis

We used polynomial regression with response surface methodology to test the hypotheses. This approach is suitable to examine the extent to which two predictor variables, called component measures, and their mutual agreement (congruence) and discrepancy (incongruence) relate to an outcome variable (Edwards & Parry, 1993; Shanock, Baran, Gentry, Pattison, & Heggstad, 2010). In the present study, the outcome variable is employee job satisfaction (Y) and the two component measures are the expected contributions of the employee (E) and the expected contributions of the leader (L). The polynomial (quadratic) regression equation is given by

$$Y = b_0 + b_1E + b_2L + b_3E^2 + b_4E \times L + b_5L^2 \quad (1)$$

where the outcome variable Y is regressed on five polynomial terms, namely the component measures themselves (E and L), their squares (E^2 and L^2) and product ($E \times L$). With this type of regression equation one is much more capable of assessing how Y is affected by congruence or incongruence between E and L at different levels of E and L , as opposed to employing models based only on the difference score $E - L$ as predictor of the outcome Y (Edwards (1994). The coefficients of a polynomial regression are, however, difficult to interpret directly. Therefore, we used response surface methodology to interpret and test the features of the graph associated with equation (1) (Edwards and Parry, 1993). This graph is a quadratic surface in a three-dimensional space, with the two component measures (E and L) as perpendicular horizontal axes and the dependent variable (Y) on the vertical axis. An example of such a graph is given in Figure 1. The quadratic surface is typically examined on a number of key facets such as: (1) the location of the principal axes, i.e. the lines in the (E, L)-plane where the surface has a ridge (see the black line in Figure 1.A) and (2) the shape (slope and curvature) of the surface along the congruence line where $E = L$ (the curve and line in Figure 1.A) and along the incongruence line where $E = -L$ (the curve and line in Figure 1.B). These key facets give insight into how the dependent variable Y varies with respect to different E - L -combinations (Edwards and Parry, 1993). The slope and curvature of the curve along the congruence line can be obtained by setting $E = L$ in equation (1), yielding:

$$\begin{aligned} Y &= b_0 + b_1E + b_2E + b_3E^2 + b_4E \times E + b_5E^2 \\ &= b_0 + (b_1 + b_2)E + (b_3 + b_4 + b_5)E^2 \end{aligned}$$

The slope at the point (E, L)=(0,0) is then given by $b_1 + b_2$ and the curvature by $b_3 + b_4 + b_5$. For instance, if is $b_1 + b_2 > 0$, and $b_3 + b_4 + b_5 = 0$, the dependent variable Y would linearly

increase with equal levels of E and L. Analogously, the slope and curvature of the curve along the incongruence line can be obtained by substituting $E=-L$ into equation (1), yielding $b_1 - b_2$ for the slope coefficient at $(E,L)=(0,0)$ and $b_3 - b_4 + b_5$ for the curvature coefficient. For instance, $b_1 - b_2 = 0$ and $b_3 - b_4 + b_5 < 0$ would indicate that the surface is downwardly curved along the incongruence line and attains its maximal value at $(E,L)=(0,0)$. In general, hypotheses about the orientation and shape of the quadratic surface can be investigated by testing algebraic expressions involving the regression coefficients b_1, \dots, b_5 (Edwards & Parry, 1993).

To account for non-independence within the groups of employees having a common leader, the polynomial regression model has been adapted for use in a multilevel or hierarchical modeling framework (Jansen & Kristof-Brown, 2005). This allows us to take into account the shared variance of the employee variables, producing more accurate error terms in the regression model (Newman, Newman, & Salzman, 2010).

Specifically, the multilevel equations are

Level 1:

$$Y = \beta_0 + \beta_1 E + \beta_2 E^2 + e$$

Level 2:

$$\beta_0 = \gamma_{00} + \gamma_{01} L + \gamma_{02} L^2 + \mu_0$$

$$\beta_1 = \gamma_{10} + \gamma_{11} L + \mu_1$$

$$\beta_2 = \gamma_{20} + \mu_2$$

Upon substituting the level-2 equations into the level-1 equation, we obtain a single mixed regression equation,

$$Y = \gamma_{00} + \gamma_{10}E + \gamma_{01}L + \gamma_{20}E^2 + \gamma_{11}EL + \gamma_{02}L^2 + (\mu_0 + \mu_1E + \mu_2E^2 + e) \quad (2)$$

The part of equation (2) corresponding to the fixed-effects (the terms with the γ -coefficients) is a polynomial regression expression such as equation (1) described above, with $b_0 = \gamma_{00}$, $b_1 = \gamma_{10}$, $b_2 = \gamma_{01}$, $b_3 = \gamma_{20}$, $b_4 = \gamma_{11}$ and $b_5 = \gamma_{02}$. This multilevel approach has also been applied in previous research (e.g., Humborstad & Kuvaas, 2013; Z. Zhang et al., 2012).

We used equation (2) to regress job satisfaction on the control variables as well as the five polynomial terms, E , L , E^2 , L^2 and $E \times L$. The estimated fixed-effect coefficients (the γ 's) were then used to generate the three-dimensional surface plot. The result of this plot can be seen in Figure 1. The E and L values are perpendicular horizontal axes, and the dependent variable is the vertical axis. On the floor of the figure are two conceptual reference lines: (a) the congruence line, along which employee and leader values are congruent ($E = L$), is shown as a dashed line from the front of the floor to the back of the floor, and (b) the incongruence line, along which employee and leader values are opposite ($E = -L$), is shown as a dashed line from left on the floor to right on the floor. The slopes and curvatures of the surface along these reference lines are then studied to assess the hypotheses.

Prior to the analysis, the independent variables E and L were centered around a common value, a halfway point of their means. This helps us reduce multicollinearity (Edwards and Parry, 1993) and ensures that the congruence and incongruence lines cross at the center portion of the data, thus enhancing the statistical power of tests along these lines (Edwards, 1994; Humborstad and Kuvaas, 2013).

Results

The results from a series of CFA's support that the hypothesized measurement model consisting of job satisfaction and the higher-order factor expected contributions (i.e., entailing in-role and extra-role expectations) is the best representation of the data. Moreover, the results support that the expected-contributions construct is a higher-order construct entailing both in-role and extra-role expectations, and that this construct is distinct from job satisfaction.

The hypothesized model shows a good fit to the data from employees ($\chi^2 = 50.34$, $df = 6$, CFI = .98, TLI = .95, RMSEA = .08, SRMR = .03, AIC = 10164.92). Compared with the fit of a two-factor model in which in-role and extra-role expectations were combined as one factor ($\chi^2 = 395.05$, $df = 8$, CFI = .84, TLI = .71, RMSEA = .21, SRMR = .07, AIC = 10505.63), the hypothesized model showed a significantly better fit (*Satorra-Bentler* $\Delta\chi^2 = 251.67$, $df = 2$, $p < .001$). The hypothesized model also fitted employees' data significantly better (*Satorra-Bentler* $\Delta\chi^2 = 362.21$, $df = 3$, $p < .001$) than a one-factor model that combined job satisfaction and expected contributions ($\chi^2 = 630.80$, $df = 9$, CFI = .75, TLI = .58, RMSEA = .23, SRMR = .11, AIC = 10739.38). In addition, inspection of the AIC shows that the hypothesized model is the most parsimonious.

In Table 1, the descriptive statistics and correlations of the control, independent and dependent variables are reported. The controls show some relevant, significant correlations. Employee age is significantly correlated with employee expected contributions ($r = 0.09$, $p < 0.05$) and leader expected contributions ($r = 0.09$, $p < 0.05$). Higher education of the employee is significantly related to leader expected contributions ($r = 0.16$, $p < 0.05$) and employee's job satisfaction ($r = -0.09$, $p < 0.05$). Introducing these controls in our regression

is thus justified.

Please insert Table 1 about here

Table 2 reports the unstandardized estimates of the fixed effects of the control variables and the polynomial term variables (the γ -coefficients in equation (2)). The slope and curvature estimates along the congruence and incongruence lines are also reported. For transparency and consistency with the basic polynomial regression equation (1), we relabeled the γ -coefficients as 'b'.

Please insert Table 2 about here

Reflecting on our analytical tools, the response surface in concordance with Hypothesis 1 would have the following properties: (1) it is downwardly curved (concave) along the incongruence line and (2) it has a ridge running along the line of congruence, such that job satisfaction is maximized when E and L agree regardless of the level of E and L. The latter occurs when the congruence line is one of the principal axes of the surface. The curvature along the incongruence line ($b_3 - b_4 + b_5$) is found to be negative and significant ($-1.06, p < .05$). This negative curvature indicates that the part of the surface along the incongruence line is concave, as can be seen in Figure 1.B, providing support for property (1). With the estimated b-coefficients in Table 2, an estimated value for the slope in EL-plane of the first principal axis can be calculated (Edwards and Parry, 1993). We find 0.374, meaning a clockwise rotation of the first principal axis with respect to the congruence line (see also Figure 1.A). To test whether this rotation is statistically significant, we followed Edwards

(2002) and thereby used 10,000 bootstrap samples to construct a percentile based 95-percent confidence interval around the slope of the first principal axis. The resulting interval is found to be $(-0.067, 1.589)$, which does not exclude the value 1 which is the slope of the congruence line in EL-plane. Hence it cannot be rejected that the first principal axis is parallel to the congruence line. In addition, the slope (b_1-b_2) of the surface along the incongruence line at the point $(E,L)=(0,0)$ is not significant $(-.17, p = .27)$, suggesting that the surface is essentially flat at that point so that job satisfaction is maximized along the incongruence line at the point of congruence. These findings about rotation of the 1st principal axis and maximization of job satisfaction along the incongruence line suggest that the ridge of the surface does indeed run along the congruence line (property (2) from above). The hypothesis (Hypothesis 1) that more congruent employee's and leader's levels of expected contributions will lead to improved employee job satisfaction is thus supported.

Hypothesis 2 states that job satisfaction is higher when an employee is congruent with a leader at a high level of expected contributions, rather than when an employee is congruent with a leader at a low level of expected contributions. To test this hypothesis, we examine the shape (slope b_1+b_2 and curvature $b_3+b_4+b_5$) of the curve along the congruence line. The non-significant curvature $(-.24, p = .56)$ suggests that the surface is essentially linear (not curved) so that the surface's slope remains constant over the line of congruence. Moreover, due to the significant positive slope $(.64, p < .01)$, the response surface in Figure 1.A reveals that job satisfaction is higher at the far corner (high/high congruence) than at the near corner (low/low congruence). It follows that Hypothesis 2 is also supported.

Please insert Figure 1 about here

Finally, we turn our attention to Hypothesis 3, stipulating that job satisfaction is lower when a leader's expected contributions are lower than an employee's, rather than when an employee's expected contributions are lower than a leader's. To test this hypothesis, we followed the strategy of testing the difference in job satisfaction at two representative locations on the congruence line, given by high and low scores on the employee and leader measures of expected contributions (Edwards & Rothbard, 1999). As hypothesis 3 is a statement about incongruence, we adopted this strategy for use on the incongruence line. Specifically, we considered the following two points on the line of incongruence: $A = (m - s, -m + s)$ and $B = (m + s, -m - s)$, where m is taken to be the value midway between the mean of the E-measure and the negative mean of the L-measure, and s the value midway between the standard deviations of the E and L- measures. For point A, the expected contributions of the employee are exceeded by those of the leader, while for point B the reverse holds. We then estimated job satisfaction scores \hat{Y}_A and \hat{Y}_B using the estimated regression coefficients for these points and calculated the difference between them. The difference found ($\hat{Y}_A - \hat{Y}_B = -0.011$) did not significantly differ from zero ($p = 0.898$). As such, our finding does not support Hypothesis 3.

Discussion

This study advances our insights into how expected contributions affect employees by focusing on the congruence with leaders' expected contributions. The vast majority of research has kept the influence of leaders in the distant background when examining the expected contributions-job satisfaction linkage. By incorporating social learning theory and social comparison theory, we suggest that the expected contributions of leaders serves as an important component of how employees experience their job. This contributes to the

literature pertaining to expected contributions by extending the understanding of employee cognitions that result from leader's and employee's expected contributions. Employees react to their job challenges not only based on what their own job prescribes, but also on the expectations that the organization holds for their leader. Whereas longstanding previous research acknowledges the important role of the leader for influencing employee satisfaction with their job (Aryee & Zhen Xiong, 2006; Graen et al., 1982), the current study demonstrates the importance of congruence of leader and employee expected contributions for job satisfaction.

By finding that congruence of expected contributions leads to strengthened job satisfaction, we extend work on leader-follower congruence. Past research shows that congruence of personality (Z. Zhang et al., 2012), and congruence of empowerment role expectations enhance employee outcomes (Humborstad & Kuvaas, 2013). We extend this literature by finding that job satisfaction is affected by the congruence of an organization's expected contributions from the employee and the leader. We thus provide evidence that the extent to which leaders face a similar level of expected contributions in their job, is important for employee job satisfaction. This finding adds to recent research that shows the relevance of social comparison processes in the workplace (Vardaman et al., 2016), by demonstrating another area in which social comparisons matter. As a consequence of social comparisons, employees seem to want similar expectations around them. This interpretation is also in correspondence with previous research that has shown that consistent expectations across team members is beneficial to employee outcomes (Audenaert, Decramer, Lange, et al., 2016). Congruence of expected contributions among employees and their leaders also impacts employee outcomes. More specifically, our findings indicate that job satisfaction in the same job could be substantially different in situations in which leaders have congruent or incongruent expected contributions. Our results are consistent with our theoretical reasoning

in which congruent leader and employee expected contributions contribute to employee job satisfaction through the experience of positive self-efficacy and goal progress. Future research should directly test these underlying mechanisms of the effects of congruence on satisfaction. These explanatory mechanisms may also have broader effects beyond job satisfaction to behavior, such as employee job performance and turnover. Understanding the motivating effects of leader expected contributions has the potential to contribute to the body of knowledge pertaining to the role of the leader in relation to employee attitudes and behavior.

What is more, we found that congruence in expected contributions would be most functional at high levels of expected contributions. Put differently, employees do not mind high challenges, as long as they are aligned with the expectations of their leaders. High challenges even have the potential to be satisfying when they are aligned with the leader's expected contributions. The best result for job satisfaction is reached when expected contributions are high and congruent with those of the leader. This finding adds to previous research that shows the important role of expected contributions in the employee-organization relationship (Tsui et al., 1997). Research demonstrates that increasing expected contributions are empowering to employees (Audenaert, Vanderstraeten, et al., 2016; A. Y. Zhang et al., 2014). In addition, our findings suggest that expecting high contributions make employees more satisfied with their job when these expectations are congruent with those of their leader. This finding is consistent with research on empowerment expectations (Humborstad & Kuvaas, 2013), implying that having a well-trained model to tackle the high expected contributions that employees face makes employees feel positive about their capacity to obtain these contributions and thus achieve valued outcomes.

There was no support for our expectation that job satisfaction is lowest when there is incongruence that is to the disadvantage of the employee. Interestingly, this implies that employees are equally dissatisfied with their job regardless of whether the incongruence is to the disadvantage of the employee or to the leader. When expected contributions are low relative to their leader's and vice versa, job satisfaction is lower. Different mechanisms may explain why employees are more dissatisfied under these two conditions. On the one hand, drawing on equity theory (Adams, 1965), different expected contributions may affect fairness perceptions. We would expect fairness perceptions to raise concerns when employees experience higher expected contributions than their leaders. Since leaders are positioned higher up on the corporate ladder, they usually enjoy more status as well as better developmental and material rewards. It may thus feel unfair when employees need to fulfil higher expected contributions relative to their leaders. On the other hand, when employees experience lower expected contributions than their leaders another mechanism may prevail. Lower expected contributions lead employees to experience less meaning and less empowerment in their work (Audenaert, Vanderstraeten, et al., 2016; A. Y. Zhang et al., 2014). In contrast, leaders are pressured to work hard and may signal other empowerment values than those held by employees. As a consequence, role ambiguity may lead to lower job satisfaction. To employees with low expected contributions, leaders' behavior to empower them may be regarded as inconsistent with the role expectations from their job. Accordingly, previous research has found that leaders' overestimation of empowerment expectations is positively related to subordinates' experiences of role ambiguity (Humborstad & Kuvaas, 2013).

Another explanation for the negative effects of incongruence in which the leader has higher expected contributions than the employee may also be related to fairness. The organization that participated in this study had recently been involved in a reorganization in which there

had been employee layoffs. With higher leader expected contributions, employees may have observed that the leader's expected contributions had been increased as a result of the reorganization. That is, leaders may have had more pressure than employees to address performance challenges associated with a leaner workforce, and this may have contributed to employee job dissatisfaction through perceptions of unfairness to the leader. This alternative explanation should also be studied in future research by examining fairness perceptions in relation to the leader.

Furthermore, future research should study different aspects of job satisfaction (i.e., satisfaction with supervisor vs. satisfaction with the job itself). Particularly satisfaction with the supervisor may be lowest when there is incongruence to the disadvantage of the employee. In that condition, the supervisor is less likely to function as a worthy role model that the employee would benefit from by getting relevant performance feedback and access to goal relevant outcomes. In contrast, when the employee has lower expected contributions relative to the leader, the leader may be more legitimate and more able to provide a supportive environment which fosters their self-efficacy beliefs and outcome expectations. This may make employees inclined to make them more satisfied with their supervisor.

Limitations and other methodological considerations

While providing a valuable contribution to the literature on congruence of expected contributions, we acknowledge a number of limitations. First, the study was conducted within one organization and adopted a cross-sectional design, although some of the issues with this design were addressed by incorporating a time lag and multiple raters. Common method bias is unlikely to be a problem in this study, considering that multiple sources were used and multiple data gatherings were employed. The multilevel data gathering and analysis (Hox,

2010), as well as the polynomial regression that incorporates interactions (Siemsen, Roth, & Oliveira, 2010) alleviate the possibility of finding relationships due to common method bias. These reassuring conclusions notwithstanding, we recognize that the approach used limits the generalizability of the findings. Future research in other organizations and with a longitudinal data design would be a worthy contribution. The latter could rule out the possibility of reverse causation. Nevertheless, we take comfort from the observation that the relationships that were found in the present study reflect multiple theories on the effects of congruence of expected contributions.

Secondly, the calculation of (in)congruence of expected contributions was based upon employees' and leaders' self-reported data. Although this method is suitable to objectively assess the degree of congruence, it does not allow us to assess whether employees actually *perceive* that their expected contributions are (in)congruent with their leaders. Future research could additionally adopt more subjective measures to gain insight into employees' perceptions of congruence. In addition to studying subjective congruence perceptions of expected contributions, it may also be worthwhile to study such perceptions of offered inducements such as participation, training and job security, which also makes part of the broader employee-organization relationship (Tsui et al., 1997).

In a similar vein, future research may wish to disentangle fairness perceptions as a mediator of expected contribution congruence and job satisfaction. Besides fairness, it would also be interesting to look at the role of intrinsic motivation. Research by Humborstad and Kuvaas (2013) reminds us that employees derive higher intrinsic motivation when leaders are aware of high empowerment role expectations of employees. Their study also showed that employees had lower intrinsic motivation when leaders' and employees' empowerment role expectations matched at low levels. Future research should study fairness processes and

intrinsic motivation processes in parallel and as potentially powerful mechanisms for and predictors of congruence and job satisfaction.

Practical implications

The results of this study have important implications for managers who face increasing challenges and the need to alter expected contributions in the work arena. Organizational challenges may lead to higher expected contributions from both employees and their leaders. When these organizational challenges need to be translated into increasing job demands, managers should carefully decide whether the emerging expectations should be changed in employees', leaders', or both jobs. We contend that leaders should face similar expected contributions in their job, relative to their position and compared with those of their employees. Our study suggests that a match between a leader's and an employee's job by reference to the extent of expected contributions maximizes job satisfaction. Thus, when designing employees' jobs, the extent of expected contributions of the leader may be an important consideration and a relative benchmark. Managers can increase job satisfaction by increasing in-role and extra-role expectations. However, when high expected contributions are required from employees, this should also be reflected in leaders' adjusted expectations. If a mismatch of expected contributions is unavoidable, employees are more likely to become dissatisfied with their job.

References

- Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 267-299). New York: Academic Press.
- Akaike, H. (1974). A new look at the statistical model identification. *IEEE transactions on automatic control*, 19(6), 716-723.
- Aryee, S., & Zhen Xiong, C. (2006). Leader–member exchange in a Chinese context: Antecedents, the mediating role of psychological empowerment and outcomes. *Journal of Business Research*, 59(7), 793-801. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0148296305000457>
- Audenaert, M., Decramer, A., George, B., Verschuere, B., & Van Waeyenberg, T. (2016). When employee performance management affects individual innovation in public organizations: The role of consistency and LMX. *International Journal of Human Resource Management*, *Forthcoming*.
- Audenaert, M., Decramer, A., Lange, T., & Vanderstraeten, A. (2016). Setting high expectations is not enough: linkages between expectation climate strength, trust, and employee performance. *International Journal of Manpower*, 37(6), 1024-1041.
- Audenaert, M., Vanderstraeten, A., & Buyens, D. (2016). When innovation requirements empower individual innovation: The role of job complexity. *Personnel Review*, *Forthcoming*.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309-328.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive perspective. *Englewood Cliffs, NJ: Princeton-Hall*.
- Braun, S., Peus, C., Weisweiler, S., & Frey, D. (2013). Transformational leadership, job satisfaction, and team performance: A multilevel mediation model of trust. *The Leadership Quarterly*, 24(1), 270-283.
- Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. R. (1983). *Assessing organizational change: A guide to methods, measures, and practices*. New York: Wiley.
- Clark, A. E. (1997). Job satisfaction and gender: why are women so happy at work? *Labour economics*, 4(4), 341-372.
- Conger, J. A., & Kanungo, R. N. (1987). Toward a behavioral theory of charismatic leadership in organizational settings. *Academy of Management Review*, 12(4), 637-647.
- Cook, C., Heath, F., & Thompson, R. L. (2000). A metaanalysis of response rates in web-or internet-based surveys. *Educational and Psychological Measurement*, 60, 821-836.
- Davis, J. A. (1966). The campus as a frog pond: An application of the theory of relative deprivation to career decisions of college men. *American journal of Sociology*, 17-31.
- Edwards, J. R. (1994). The study of congruence in organizational behavior research: Critique and a proposed alternative. *Organizational Behavior and Human Decision Processes*, 58(1), 51-100.
- Edwards, J. R. (2002). Alternatives to difference scores: Polynomial regression and response surface methodology. *Advances in measurement and data analysis*, 350-400.
- Edwards, J. R., & Parry, M. E. (1993). On the use of polynomial regression equations as an alternative to difference scores in organizational research. *Academy of Management Journal*, 36(6), 1577-1613.
- Edwards, J. R., & Rothbard, N. P. (1999). Work and family stress and well-being: An examination of person-environment fit in the work and family domains. *Organizational Behavior and Human Decision Processes*, 77(2), 85-129.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117-140.
- Graen, G., Novak, M. A., & Sommerkamp, P. (1982). The effects of leader—member exchange and job design on productivity and satisfaction: Testing a dual attachment model. *Organizational Behavior and Human Performance*, 30(1), 109-131.
- Greenberg, J., Ashton-James, C. E., & Ashkanasy, N. M. (2007). Social comparison processes in organizations. *Organizational Behavior and Human Decision Processes*, 102(1), 22-41.

- Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2009). Leader-member exchange and empowerment: Direct and interactive effects on job satisfaction, turnover intentions, and performance. *The Leadership Quarterly*, 20(3), 371-382. Retrieved from <http://www.sciencedirect.com/science/article/B6W5N-4W1JY4S-5/2/b280ba56219d6b01acd99e123a8e5e4a>
- Hom, P. W., Tsui, A. S., Wu, J. B., Lee, T. W., Zhang, A. Y., Fu, P. P., & Li, L. (2009). Explaining Employment Relationships With Social Exchange and Job Embeddedness. *Journal of Applied Psychology*, 94(2), 277-297. Retrieved from <http://www.sciencedirect.com/science/article/B6WY3-4VYTPR9-1/2/a981a5044771d455ae1830e362cc579b>
- Hox, J. J. (2010). *Multilevel analysis. Techniques and applications. 2nd Edition.* . New York: Routledge.
- Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Humborstad, S. I. W., & Kuvaas, B. (2013). Mutuality in leader-subordinate empowerment expectation: Its impact on role ambiguity and intrinsic motivation. *The Leadership Quarterly*, 24(2), 363-377.
- Jansen, K. J., & Kristof-Brown, A. L. (2005). Marching to the beat of a different drummer: Examining the impact of pacing congruence. *Organizational Behavior and Human Decision Processes*, 97(2), 93-105.
- Jia, L., Shaw, J., Tsui, A., & Park, T.-Y. (2013). A social-structural perspective on employee-organization relationships and team creativity. *Academy of Management Journal*, 57(3), 869-891. doi:10.5465/amj.2011.0147
- Kaplowitz, M. D., Hadlock, T. D., & Levine, R. (2004). A comparison of web and mail survey response rates. *Public opinion quarterly*, 68(1), 94-101.
- Lee, R., & Wilbur, E. R. (1985). Age, Education, Job Tenure, Salary, Job Characteristics, and Job Satisfaction: A Multivariate Analysis. *Human Relations*, 38(8), 781-791. doi:doi:10.1177/001872678503800806
- Lent, R. W., & Brown, S. D. (2006). Integrating person and situation perspectives on work satisfaction: A social-cognitive view. *Journal of Vocational Behavior*, 69(2), 236-247.
- Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural equation modeling*, 9(2), 151-173.
- Locke, E. A. (1976). The nature and causes of job satisfaction. *Handbook of industrial and organizational psychology*, 1, 1297-1343.
- Marsh, H. W., Hau, K.-T., Balla, J. R., & Grayson, D. (1998). Is more ever too much? The number of indicators per factor in confirmatory factor analysis. *Multivariate behavioral research*, 33(2), 181-220.
- Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): Developing and Validating a Comprehensive Measure for Assessing Job Design and the Nature of Work. *Journal of Applied Psychology*, 91(6), 1321-1339. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=25002064&site=ehost-live>
- Newman, D., Newman, I., & Salzman, J. (2010). Comparing OLS and HLM models and the questions they answer: Potential concerns for type VI errors. *Multiple Linear Regression Viewpoints*, 36(1), 1-8.
- Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, 31(2-3), 463-479.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual review of psychology*, 63, 539-569.

- Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, 66(4), 507-514.
- Shanock, L. R., Baran, B. E., Gentry, W. A., Pattison, S. C., & Heggstad, E. D. (2010). Polynomial regression with response surface analysis: A powerful approach for examining moderation and overcoming limitations of difference scores. *Journal of Business and Psychology*, 25(4), 543-554.
- Shore, L. M., & Barksdale, K. (1998). Examining Degree of Balance and Level of Obligation in the Employment Relationship: A Social Exchange Approach. *Journal of Organizational Behavior*, 19(ArticleType: research-article / Issue Title: Special Issue: The Psychological Contract at Work / Full publication date: 1998 / Copyright © 1998 John Wiley & Sons), 731-744. Retrieved from <http://www.jstor.org/stable/3100286>
- Siemens, E., Roth, A., & Oliveira, P. (2010). Common Method Bias in Regression Models With Linear, Quadratic, and Interaction Effects. *Organizational Research Methods*, 13(3), 456-476. Retrieved from <http://orm.sagepub.com/content/13/3/456.abstract>
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571-610.
- Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. (1997). Alternative approaches to the employee-organization relationship: does investment in employees pay off? . *Academy of Management Journal*, 40(5), 1089-1997. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=9711111162&site=ehost-live>
- Vardaman, J. M., Allen, D. G., Otondo, R. F., Hancock, J. I., Shore, L. M., & Rogers, B. L. (2016). Social comparisons and organizational support: Implications for commitment and retention. *Human Relations*, 69(7), 1483-1505.
- Wang, D., Tsui, A. S., Zhang, Y., & Ma, L. (2003). Employment relationships and firm performance: evidence from an emerging economy. *Journal of Organizational Behavior*, 24(5), 511-535. doi:10.1002/job.213
- Yaffe, T., & Kark, R. (2011). Leading by example: the case of leader OCB. *Journal of Applied Psychology*, 96(4), 806.
- Yang, C., Nay, S., & Hoyle, R. H. (2010). Three approaches to using lengthy ordinal scales in structural equation models parceling, latent scoring, and shortening scales. *Applied Psychological Measurement*, 34(2), 122-142.
- Zhang, A. Y., Song, L. J., Tsui, A. S., & Fu, P. P. (2014). Employee responses to employment-relationship practices: The role of psychological empowerment and traditionality. *Journal of Organizational Behavior*, 35(6), 809-830.
- Zhang, Z., Wang, M., & Shi, J. (2012). Leader-follower congruence in proactive personality and work outcomes: The mediating role of leader-member exchange. *Academy of Management Journal*, 55(1), 111-130.

Table 1: Means, standard deviations and correlations of control, independent and dependent variables^a

	Mean	SD	1	2	3	4	5	6	7	8
1. Gender difference ^b	0.46	0.50								
2. Age	43.56	10.81	0.05							
3. Higher education ^b	0.31	0.46	0.01	-0.07						
4. Employee expected contributions (E)	3.94	0.48	0.06	0.09	0.01					
5. Leader expected contributions (L)	4.11	0.17	0.08	0.09	0.16	0.10				
6. E ² ^c			-0.06	-0.03	0.00	-0.28	-0.01			
7. E×L ^c			-0.02	0.06	-0.03	0.49	0.07	-0.01		
8. L ² ^c			0.07	0.14	0.19	0.15	0.59	-0.04	0.18	
9. Job satisfaction (Y)	4.17	0.59	-0.06	-0.01	-0.09	0.23	0.08	-0.14	0.17	0.01

^a n = 947. Correlations are computed by disaggregating the leader expected contribution values to the employee level.

For correlation coefficient $|r| > .06$, $p < .05$; two-tailed test.

^b 1 = yes, 0 = no

^c The variables E en L were centered around a common value halfway between their means before computing all correlations involving the polynomial term variables E², E×L en L².

Table 2: Cross-level polynomial regression of job satisfaction on expected contributions (in)congruence

Fixed effects coefficients								Response surface features			
Control variables			Polynomial term variables					E = L congruence line		E = -L incongruence line	
Gender difference	Age	Higher education	E $b_1 (\gamma_{10})$	L $b_2 (\gamma_{01})$	E^2 $b_3 (\gamma_{20})$	$E \times L$ $b_4 (\gamma_{11})$	L^2 $b_5 (\gamma_{02})$	Slope $b_1 + b_2$	Curvature $b_3 + b_4 + b_5$	Slope $b_1 - b_2$	Curvature $b_3 - b_4 + b_5$
-.09**	-.00	-.12***	.24***	.40***	-.09	.41*	-.56	.64***	-.24	-.17	-1.06**

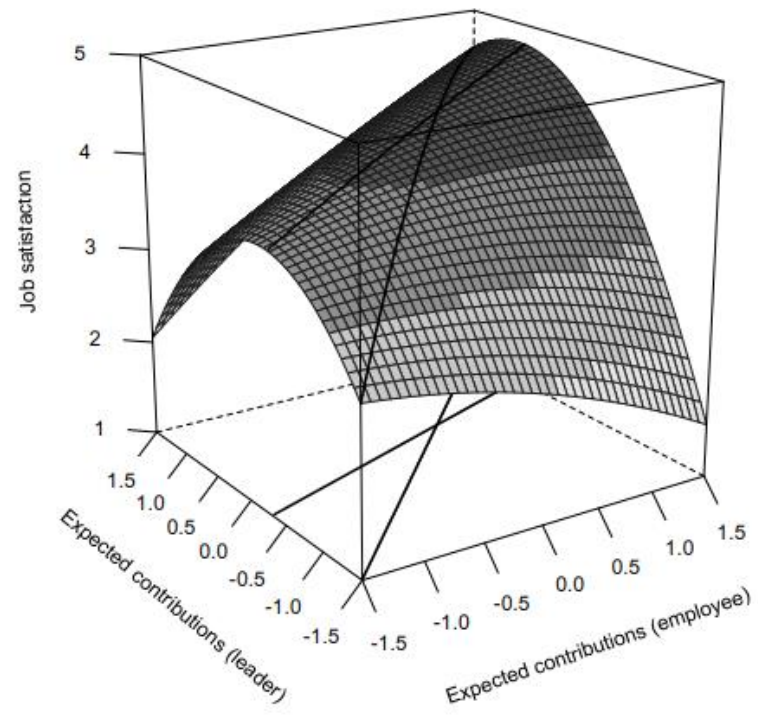
Note: * $p < .1$; ** $p < .05$; *** $p < .01$

n employee = 947; n leader = 224

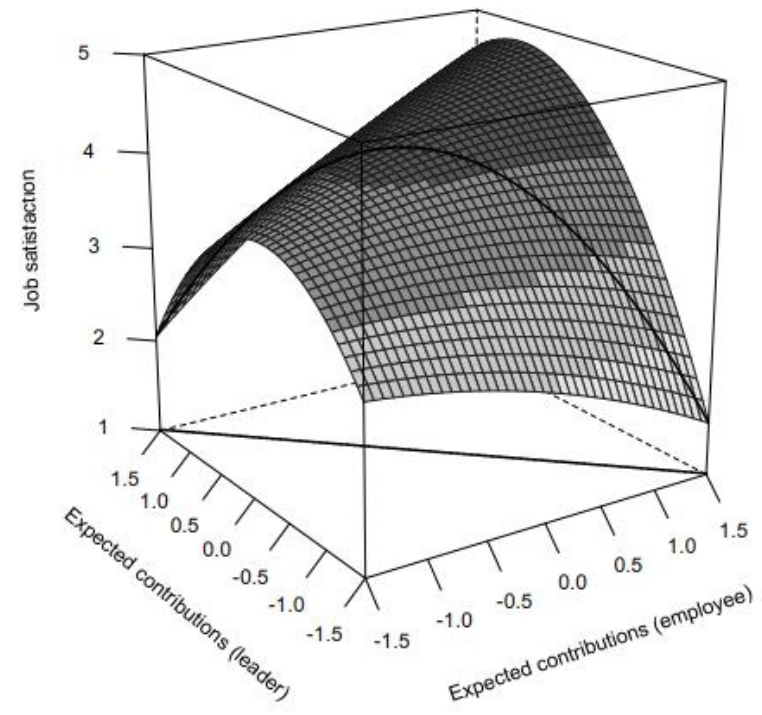
Total variance explained: .12, calculated as $1 - (\text{level-1 variance of actual model} / \text{level-1 variance of one-way ANOVA model})$

Figure 1 Job satisfaction as predicted from expected contributions

A.



B.



Appendix: Parcel-level correlation matrix

	1	2	3	4	5
1. In-role expectations – odd parcel					
2. In-role expectations – even parcel	0.64				
3. Extra-role expectations – odd parcel	0.51	0.44			
4. Extra-role expectations – even parcel	0.46	0.40	0.81		
5. Job satisfaction – odd parcel	0.23	0.04	0.20	0.21	
6. Job satisfaction – even parcel	0.14	0.02	0.13	0.12	0.46

n = 1097. For correlation coefficient $|r| > .04$, $p < .001$; two-tailed test.

For each employee-level construct, two parcels were calculated that represent the means of the odd and even items.